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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/507,212	02/18/2000	Seiji Yamashita	P 00 572.006	8199

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EXAMINER

TRAN, THAO T

ART UNIT	PAPER NUMBER
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1711

DATE MAILED: 07/09/2003

28

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/507,212

Applicant(s)

YAMASHITA, SEIJI

Examiner

Thao T. Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21, 23 and 25 is/are pending in the application.
- 4a) Of the above claim(s) 1-9, 14, 20, 21 and 25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10-13, 19 and 23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. In light of new prior art being found, the finality of the rejection of the last Office action of January 10, 2003 is withdrawn.
2. Claims 1-21, 23, and 25 are currently pending in this application. Claims 1-9, 14-18, 20-21, and 25 have been withdrawn from further consideration as non-elected inventions as set forth in Paper No. 4.
3. Claims 10-13, 19, and 23 have been elected by original presentation in Paper No. 4 and therefore are being examined below.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 10-11 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Taoda et al. (US Pat. 5,562,820).

Taoda teaches an apparatus for reducing particle contamination (vessel for treating polluted water), comprising a plastic container (vessel or substrate) and a coating of titanium dioxide on selected portions of the container (see abstract; col. 3, ln. 3-13). The examiner is interpreting that selected portions of the container being the container.

Although the reference is silent with respect to “the titanium dioxide coating attracting atmospheric water molecules to produce a hydrophilic surface on the container for facilitating cleaning the container”, since the reference teaches the same titanium dioxide coating as that in the instantly claimed invention, the titanium dioxide coating of the reference would inherently attract water molecules to produce a hydrophilic surface on the container.

Moreover, with respect to the limitation, “so as to attract atmospheric water molecules to produce a hydrophilic surface on the container for facilitating cleaning the container”; it has been well settled that limitations on the properties of the material worked upon or functional limitations have been held to have insignificant patentable weight in an apparatus claim. See **MPEP** 2114-2115.

With respect to the preamble “for reducing particle contamination of an article” and the limitation “adapted for holding the article”; it has been within the skill in the art that an intended use clause in the preamble would have very little significant patentable weight in a method or apparatus claim. See **MPEP** 2111.02. Moreover, the limitation “adapted for holding the article” is not a positive limitation. In addition, since the prior art teaches a plastic container, a container should be able to hold an article; and since the prior art’s container is also coated with titanium dioxide, the prior art’s container should be able to perform the same function as that in the instant claim.

In regards to claim 11, Taoda teaches the container including a closeable lid (see col. 3, ln. 39-41).

In regards to claim 23, Taoda teaches the coating comprising a gel (see col. 3, ln. 46-48).

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6. Claims 10-13, and 23 are rejected under 35 U.S.C. 102(e) as being anticipated by Goto et al. (US Pat. 6,235,358).

In regards to claim 10, Goto teaches an apparatus for reducing contamination (sanitary characteristics), comprising a plastic container (see plastic packaging container, col. 13, ln. 12), and a coating on selected portions of the container, wherein the coating consists essentially of titanium dioxide (see abstract; col. 3, ln. 12-41; col. 7, ln. 2-6; col. 13, ln. 12-15). The examiner is interpreting that selected portions of the container being the container.

Goto further teaches that the coating layer is a resin composition, comprising a cationic curable resin comprising an alicyclic epoxy resin, a photo-cationic-curing catalyst, a sensitizer, and a pigment comprising titanium dioxide (see abstract). Goto also discloses the epoxy resin being 100 parts per 250 parts by weight of titanium dioxide, the photo-catalyst being 1 to 20 parts, and the sensitizer 1.5 to 5 parts per 100 parts by weight of titanium dioxide (see col. 3, ln. 12-21). Hence, titanium dioxide would inherently be an essential component of Goto's resin composition in the coating layer, and therefore, Goto's coating layer would also inherently attract atmospheric water as presently claimed.

Note: On page 4 of the instant specification, Applicant discloses that the coating, in addition to titanium dioxide, may include other chemicals that are relatively hydrophilic. The examiner is interpreting that chemicals, such as the alicyclic epoxy resin of formula (3) (see col. 5, ln. 22-40) containing oxygen as taught by Goto, would be relatively hydrophilic.

Moreover, with respect to the limitation, "so as to attract atmospheric water molecules to produce a hydrophilic surface on the container for facilitating cleaning the container"; it has been well settled that limitations on the properties of the material worked upon or functional

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limitations have been held to have insignificant patentable weight in an apparatus claim. See **MPEP** 2114-2115.

With respect to the preamble “for reducing particle contamination of an article” and the limitation “adapted for holding the article”; it has been within the skill in the art that an intended use clause in the preamble would have very little significant patentable weight in a method or apparatus claim. See **MPEP** 2111.02. Moreover, the limitation “adapted for holding the article” is not a positive limitation. In addition, since the prior art teaches a plastic container, a container should be able to hold an article; and since the prior art’s container is also coated with titanium dioxide, the prior art’s container should be able to perform the same function as that in the instant claim.

In regards to claim 11, Goto teaches the container including a closeable lid for sealing the interior of the container from the external atmosphere (plastic can) (see col. 10, ln. 15-53, col. 13, ln. 13-14).

In regards to claims 12-13, Goto teaches the container including polypropylene and polycarbonate (see col. 13, ln. 29-35).

In regards to claim 23, Goto teaches the coating comprising a gel (paint) (see col. 15, ln. 49-54; Table 1).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Goto or Taoda as applied to claim 10 above, and further in view of Nyseth (US Pat. 5,575,394).

Goto and Taoda are as set forth in claim 10 above and incorporated herein.

Goto and Taoda differ from the instant invention because neither reference teaches at least one semiconductor wafer disposed in the container. However, Goto further teaches that the thickness of the can bottom portions differs depending upon the use of the container (see col. 11, ln. 21-24), indicating that the container would be used for different purposes. And Taoda teaches the container holding the water to be treated, therefore, Taoda's container would also be able to hold semiconductor wafers or any other articles to be treated as well.

Nyseth teaches the use of a plastic container storing semiconductor wafers, hence including semiconductor wafers in the container (see abstract; col. 1, ln. 26-31).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have used a plastic container of Goto or Taoda to store semiconductor wafers as taught by Nyseth, because Nyseth teaches that the use of a plastic container would minimize the likelihood of contamination of the wafers with particulate contaminants (see col. 1, ln. 26-31).

9. Claims 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taoda as applied to claim 10 above, and further in view of Goto.

Taoda is as set forth in claim 10 above and incorporated herein.

Taoda teaches the use of a plastic container (see col. 3, ln. 3-8). However, Taoda does not teach the specific plastic being used.

Goto teaches the use of a plastic container, including polypropylene and polycarbonate (see col. 13, ln. 29-35).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have used a plastic container including polypropylene or polycarbonate, as taught by Goto, in the apparatus of Taoda. Because these polymers are highly resilient, flexible, and transparent plastic materials, the use of these polymers in the container would make the materials more moldable to form the container and would allow light to penetrate through for the purpose of decontaminating the interior of the container.

Response to Arguments

10. Applicant's arguments filed October 30, 2002 have been fully considered but they are not persuasive.

In response to applicant's request on the withdrawal of the Restriction Requirement, since this application contains claims 1-9, 14-18, 20-21, and 25 which are drawn to an invention nonelected with traverse in Paper No. 4, and since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 1-9, 14-18, 20-21, and 25 have been withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

On page 3 of the Remarks, Applicant alleges, "the coating of Goto does not consist essentially of titanium dioxide so as to attract 'atmospheric water molecules to produce a hydrophilic surface on the container for facilitating cleaning the container'". However, as

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pointed out in paragraph 7 above, the coating layer of Goto contains 100 parts of the epoxy resin per 20 to 250 parts by weight of titanium dioxide, the photo-catalyst being 1 to 20 parts and the sensitizer 1.5 to 5 parts by weight per 100 parts by weight of titanium dioxide (see col. 3, ln. 12-21). Hence, titanium dioxide would inherently be an essential component of the coating of Goto, and therefore, Goto's coating would also inherently attract atmospheric water as presently claimed.

Contact Information

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thao T. Tran whose telephone number is 703-306-5698. The examiner can normally be reached on Monday-Friday, from 8:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 703-308-2462. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

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July 1, 2003



James J. Seidleck
Supervisory Patent Examiner
Technology Center 1700